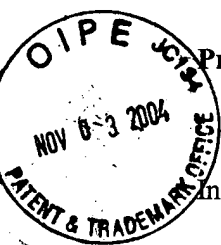


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Practitioner's Docket No. 99CR073/KE

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Leonard R. Hoffman et al.

Application No.: 09/576,187

Group No.: 2177

Filed: May 23, 2000

Examiner: G. Robinson

For: Method And System For Managing The Configuration Of An Evolving Engineering Design Using An Object-Oriented Database

Mail Stop Appeal Briefs – Patents

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

TRANSMITTAL OF APPEAL BRIEF
(PATENT APPLICATION--37 C.F.R. § 1.192)

1. Transmitted herewith, in triplicate, is the APPEAL BRIEF in this application, with respect to the Notice of Appeal filed on September 2, 2004.
2. STATUS OF APPLICANT

This application is on behalf of other than a small entity.

CERTIFICATION UNDER 37 C.F.R. §§ 1.8(a) and 1.10*

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Signature

Date: November 2, 2004

Sheila K. Mathews

(type or print name of person certifying)

* Only the date of filing (' 1.6) will be the date used in a patent term adjustment calculation, although the date on any certificate of mailing or transmission under ' 1.8 continues to be taken into account in determining timeliness. See ' 1.703(f). Consider "Express Mail Post Office to Addressee" (' 1.10) or facsimile transmission (' 1.6(d)) for the reply to be accorded the earliest possible filing date for patent term adjustment calculations.

3. FEE FOR FILING APPEAL BRIEF

Pursuant to 37 C.F.R. § 1.17(c), the fee for filing the Appeal Brief is:

other than a small entity \$340.00

Appeal Brief fee due \$340.00

4. EXTENSION OF TERM

The proceedings herein are for a patent application and the provisions of 37 C.F.R. § 1.136 apply.

Applicant believes that no extension of term is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fee for extension of time.

5. TOTAL FEE DUE

The total fee due is:

Appeal brief fee \$340.00
Extension fee (if any) \$0.00

TOTAL FEE DUE \$340.00

6. FEE PAYMENT

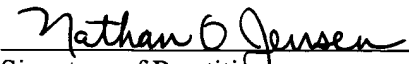
Authorization is hereby made to charge the amount of \$340.00 to Deposit Account No. 18-1722.

A duplicate of this transmittal is attached.

7. FEE DEFICIENCY

If any additional extension and/or fee is required, and if any additional fee for claims is required, charge Deposit Account No. 18-1722.

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Signature of Practitioner
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND
INTERFERENCES

In re Application of:

Leonard R. Hoffman et al.

Serial No: 09/576,187

Filed: May 23, 2000

For: Method and system for managing the configuration of an evolving engineering design using an object-oriented database

Group Art Unit: 2177

Examiner: G. Robinson

Attorney Docket: 99CR073/KE

SUBMITTED: November 2, 2004

Commissioner for Patents
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Sheila K. Mathews
(Printed Name)

(Printed Name)
Shula K Mathews
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APPLICANTS' BRIEF ON APPEAL TO THE BOARD

This is an appeal from the final rejection of the Examiner dated April 13, 2004, rejecting all of the claims pending in the case. This Brief is accompanied by the requisite fee set forth in §1.17(c).

REAL PARTY IN INTEREST

The real party in interest in this appeal is the assignee, Rockwell Collins Inc.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND
INTERFERENCES

RELATED APPEALS AND INTERFERENCES

The application on appeal is not subject to, or an element in, any other appeal or interference proceeding within the U.S. Patent and Trademark Office.

STATUS OF CLAIMS

Claims 1, 3-14, 17, 18 and 20 are pending, have been finally rejected, and are all on appeal, except for claims 17 and 18, which are hereby being cancelled. Claims 2, 15-16 and 19 have been cancelled.

STATUS OF AMENDMENTS

No amendments to the claims or the specification have been filed subsequent to the final rejection dated 04/13/04.

SUMMARY OF THE CLAIMED SUBJECT MATTER

Without limiting the claims on appeal, the independent claims of the application are summarized below:

Independent Claim 1: A configuration management system which comprises an object-oriented database management system containing a group of configuration items where one configuration item of the group is currently set to be changed and the database management system includes a copy of that one configuration item. Page 27, lines 12-22, and page 28, lines 1-10. Additionally, the ownership of that one

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND
INTERFERENCES

configuration item is represented by a copy of each object which owns that configuration item (see Fig. 4 for CIs coupled by solid lines). A shared ownership exists for configuration items which are owned by one configuration item, but only if they have not been modified themselves (compare Fig. 5 and Fig. 6 with respect to 406 and 502). Additionally, every object in the database management system includes therein a list of owners (e.g., compare 512 in Fig. 5 and 606 in Fig. 6) and of that object, and that list is capable of including multiple owners (e.g., 512 in Fig. 5).

Independent Claim 8: Claim 8 was originally dependent from claim 1 and was made independent by amendment. Claim 8 adds the additional limitation that there is an absence of a table containing a reference to each object that is a member of a composite object (see the table for CI-2 412 in Fig. 4, which does not contain such a table).

Independent Claim 9: Claim 9 is a process of managing a configuration by creating a change package which includes providing a database management system with a plurality of pre-existing objects about an engineering design (see Fig. 4 and associated text on page 26, lines 10-21, page 27 and page 28, lines 1-10); creating a change package allows the editing of one configuration item (see Fig. 5 and associated text on page 28, lines 11-20 and page 29, lines 3-7). The next step is to automatically create a copy of every object that owns the new version selected earlier (Fig. 6, page 29, lines 12-18) and to automatically create a copy of every object which owns an automatically created copy (Fig. 7 and page 30, lines 3-9) and lastly creating a sharing

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND
INTERFERENCES

relationship between a first automatically created copy and a first of a plurality of pre-existing objects (Figs. 8 and 9, page 30, lines 10-end and page 31, lines 1-8).

Independent Claim 20: Claim 20 is essentially a system of claim 1 with a few more additional features, such as:

Each list has a context characteristic for an owner of the object and reference relationships from a first object to a second object which includes a context characteristic of an ownership of the second object (page 26, lines 1-9).

A work space is provided where shared ownership extends from inside the workspace (change package) to outside the workspace through the use of lists for each item outside the workspace which is owned by items in the workspace (Figs. 8 and 9, page 30, lines 10-end and page 31, lines 1-8).

GROUND OF REJECTIONS TO BE REVIEWED ON APPEAL

All of the pending claims have been finally rejected under the single ground of rejection of failing to comply with the written description requirement of the first paragraph of 35 U.S.C. §112.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND
INTERFERENCES

ARGUMENT

WRITTEN DESCRIPTION REQUIREMENT OF 35 U.S.C. §112, FIRST PARAGRAPH

The analysis of the Examiner's erred rejection begins with the claims as amended.

CLAIM 1

Claim 1, as presented on appeal, is primarily the result of merely moving originally filed claim limitations into a new location in claim 1. Original claim 2 included the limitation of:

"wherein every object in said object-oriented database management system has as a component thereof a list of owners of said object; "

this was added to claim 1 in the amendment filed on February 21, 2003, which also cancelled claim 2.

However, the Applicants did make two additional minor changes to claim 1.

One change was to highlight an important aspect of the claimed invention. This change was merely positively restating a point which was included in the original claim

2. The following language was added to claim 1:

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND
INTERFERENCES

“wherein said list of owners is capable of including multiple owners.”

The Applicants concede that this clause does not appear verbatim anywhere in the patent application as filed, but the Applicants assert that this is NOT adding anything new to the claim. The original text of claim 2 claimed a “LIST OF OWNERSS” (emphasis is added to the terminal “S” to show that “owners” was always plural). A list of OWNERS (plural) must be capable of including multiple owners. Again, the Applicants decided to add this last clause to claim 1 to make more salient the fact that the list of owners was referring to multiple owners. It clearly was not necessary to convey that point, but was included to make the significance of the limitation less subtle and much more salient.

Another minor change to claim 1 was to move the notion of the limitation “disposed in the object-oriented database management system” from the end of the claim clause, which states: “a copy of each object which directly and by ownership through another owner, owns said predetermined configuration item” to the beginning of the same claim clause. This does not change the meaning or scope of the claim; it merely makes the claim arguably easier to read.

The Examiner errs when asserting that claim 1, as amended, lacks a written description. Since claim 1 is essentially identical to claim 2 as ORIGINALLY FILED, except with the inclusion of the redundant limitation of the last clause (i.e., that a list of

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND
INTERFERENCES

owners is capable of including multiple owners), the Applicants believe that claim 1, as amended, is, as a matter of law, completely supported by claim 2 as originally filed.

The Examiner appears to believe that a rejection for lack of written description is appropriate if the amended claims include a phrase which was not originally presented verbatim in the detailed description section of the patent application. This is incorrect.

The CCPA stated that original claims provide their own written description.

“...this court noted that original claims constitute their own description. ***Later added claims of similar scope and wording are described thereby.***” (emphasis added) *In re* Koller, 613 F.2d 819, 823-24, 204 USPQ 702, 706 (CCPA 1980).

This law has been consistently adopted by the Federal Circuit. The Federal Circuit considers the original claim is itself adequate “written description” of the claimed invention. It is equally a “written description” whether located among the original claims or in the descriptive part of the specification. “The claims as filed are part of the specification, and may provide or contribute to compliance with Section 112.” *Hyatt v. Boone*, 146 F.3d 1348, 1352, 47 USPQ2d 1128, 1130 (Fed. Cir. 1998), *cert. denied*, 525 U.S. 1141 (1999); *Citing Northern Telecom, Inc. v. Datapoint Corp.*, 908 F.2d 931, 938, 15 USPQ2d 1321, 1326 (Fed. Cir. 1990) (the original claims are part of the patent specification); *In re Benno*, 768 F.2d 1340, 1346, 226 USPQ 683, 686-87 (Fed. Cir. 1985).

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND
INTERFERENCES

The Applicants respectfully request the Board of Appeals to overrule the Examiner with respect to the rejection of claim 1 for lacking a written description of the invention.

The Applicants will individually examine each of the amended claims that are being presented for review.

CLAIM 3

Claim 3 was amended to depend from claim 1 instead of claim 2 after the limitations of claim 2 were incorporated completely into claim 1 and claim 2 was cancelled. The arguments for reversal of the Examiner's rejection of claim 1 are hereby repeated with respect to claim 3.

CLAIMS 4-7

Claims 4-7 are un-amended; however, they depend from claim 1. The arguments for reversal of the Examiner's rejection of claim 1 are hereby repeated with respect to claims 4-7.

CLAIM 8

Claim 8 is essentially an "original claim" which was amended only to be in independent form. The above discussion regarding original claims constituting their own written description is repeated with respect to claim 8.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND
INTERFERENCES

CLAIMS 9-14

Claims 9-14 are presented on appeal as originally filed. The above discussion regarding original claims constituting their own written description is repeated with respect to claims 9-14.

CLAIM 20

Claim 20 was amended to make the same two minor changes as were discussed with respect to claim 1. The arguments and analysis with respect to these two minor changes are repeated with respect to claim 20.

CONCLUSION

The Applicants respectfully request that the rejection of all the pending claims be reversed and that the application, as amended, be allowed.

Respectfully submitted,

2 Nov 2004
Date

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND
INTERFERENCES

CLAIMS APPENDIX

Claim 1. A system for assisting a user with configuration management comprising:

an object-oriented database management system containing a plurality of configuration items;

said object-oriented database management system having an ability for making changes to a predetermined configuration item of said plurality of configuration items;

a copy of said predetermined configuration item is disposed in said object-oriented database management system, in response to a direct user intervention;

disposed in the object-oriented database management system, a copy of each object which directly and by ownership through another owner, owns said predetermined configuration item;

a shared ownership of other configuration items which have not been modified themselves and which are owned by said predetermined configuration item;

wherein every object in said object-oriented database management system has as a component thereof a list of owners of said object; and

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND
INTERFERENCES

wherein said list of owners is capable of including multiple owners.

Claim 3. A system of claim 1 wherein each element of said list includes a context characteristic for an owner of said object.

Claim 4. A system of claim 3 further includes reference relationships from a first object to a second object, which includes a context characteristic on an ownership characteristic of said second object.

Claim 5. A system of claim 1 further including:

a shared ownership of other configuration items which have not been modified themselves and which are owned by each object which directly and by ownership through another owner, owns said predetermined configuration item; and,

a workspace for making changes to said plurality of configuration items in isolation.

Claim 6. A system of claim 5 wherein the workspace contains said copy of said predetermined configuration item and a copy of each object which directly and by ownership through another owner, owns said predetermined configuration item.

Claim 7. A system of claim 6 wherein said shared ownership extends from inside said workspace to outside of said workspace, through the use of

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND
INTERFERENCES

ownership lists for each item outside of the workspace which is owned by items in the workspace.

Claim 8. A system for assisting a user with configuration management comprising:

an object-oriented database management system containing a plurality of configuration items;

said object-oriented database management system having an ability for making changes to a predetermined configuration item of said plurality of configuration items;

a copy of said predetermined configuration item is disposed in said object-oriented database management system, in response to a direct user intervention;

disposed in the object-oriented database management system, a copy of each object which directly and by ownership through another owner, owns said predetermined configuration item;

a shared ownership of other configuration items which have not been modified themselves and which are owned by said predetermined configuration item; and

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND
INTERFERENCES

wherein there is no table containing a reference to each object that is a member of a composite object.

Claim 9. A method of managing a configuration of an engineering design, comprising the steps of:

providing an ODBMS for maintaining information about an engineering design;

providing a plurality of pre-existing objects in said ODBMS, which contain information about said engineering design;

creating, via an ODBMS user intervention, a newer version of one of said plurality of pre-existing objects;

creating, without direct ODBMS user intervention, an automatically created copy of every object which owns said newer version which is created by said ODBMS user intervention;

creating, without direct ODBMS user intervention, an automatically created copy of every object which owns an automatically created copy which was created without direct ODBMS user intervention; and,

creating, without direct ODBMS user intervention, a sharing relationship, between a first automatically created copy and a first of said plurality of pre-existing objects, where said first of said plurality of pre-existing objects is owned

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND
INTERFERENCES

by said first automatically created copy and is not itself an automatically created copy.

Claim 10. A method of claim 9 wherein said step of creating, via an ODBMS user intervention, a newer version of one of said plurality of pre-existing objects, results in said newer version being located in an independent workspace, to facilitate concurrent engineering by providing change isolation capabilities.

Claim 11. A method of claim 10 wherein said sharing relationship is not between two objects located in said independent workspace.

Claim 12. A method of claim 11 which does not include the step of creating a table containing a reference to each object that is a member of a composite object.

Claim 13. A method of claim 9 wherein the step of providing a plurality of pre-existing objects in said ODBMS, which contain information about said engineering design, includes the step of:

providing, for each of said plurality of pre-existing objects as a component thereof, a list of owners of said each of said plurality of pre-existing objects.

Claim 14. A method of claim 13 wherein each element of said list includes a context characteristic for an owner of an object.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND
INTERFERENCES

Claim 17. Cancelled.

Claim 18. Cancelled.

Claim 20. A system comprising:

an ODBMS having a plurality of configuration items therein, wherein said each of said plurality of configuration items is an object and includes engineering information relating to a predetermined engineering design;

said ODBMS having an ability for making changes to a predetermined configuration item of said plurality of configuration items;

a copy of said predetermined configuration item is disposed in said object-oriented database management system, in response to a direct user intervention;

disposed in the ODBMS, a copy of each object which directly and by ownership through another owner, owns said predetermined configuration item;

a shared ownership of other configuration items which are owned by said predetermined configuration item;

wherein every object in said object-oriented database management system has as a component thereof a list of owners of said object;

wherein said list of owners is capable of including multiple owners;

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND
INTERFERENCES

wherein each element of said list includes a context characteristic for an owner of said object;

reference relationships from a first object to a second object which includes a context characteristic on an ownership characteristic of said second object;

a workspace for making changes to said plurality of configuration items in isolation;

wherein the workspace contains said copy of said predetermined configuration item and a copy of each object which directly and by ownership through another owner, owns said predetermined configuration item; and,

wherein said shared ownership extends from inside said workspace to outside of said workspace, through the use of ownership lists for each item outside of the workspace which is owned by items in the workspace.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND
INTERFERENCES

EVIDENCE APPENDIX

The item below is the Rule 132 Affidavit by Gregory Young which was filed on February 5, 2004.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND
INTERFERENCES

RELATED PROCEEDINGS APPENDIX

There are no related proceedings associated with this appeal.